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**ONE NEW RECORDED SPECIES OF THE GENUS *STRONGYLUM*
(COLEOPTERA: TENEBRIONIDAE) FROM CHINA**

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Summary. *Strongylium rufipenne* L. Redtenbaeher, 1844 is reported from China for the first time. This species is redescribed and illustrated. The habitat photos and distribution map of *S. rufipenne* are also given.

Key words: Tenebrionidae, darkling beetles, Stenichiini, description, distribution, new record, East Asia.

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Резюме. Впервые из Китая указывается *Strongylium rufipenne* L. Redtenbaeher, 1844. Приводится иллюстрированное описание этого вида. Также даны фотографии местообитания и карта-схема распространения *S. rufipenne*.

INTRODUCTION

The genus *Strongylium* Ditmar, 1809 (type species: *S. chalconotum* Kirby, 1819) is one of the largest genera of stenochid beetles (Tenebrionidae: Stenochinae), with more than 1400 species widely distributed in the Central and South America, East and Southeast Asia, Africa and Papua-Australian region; ninety-four species were recorded in China (Yuan & Ren, 2017). In this paper *S. rufipenne* L. Redtenbaeher, 1844 is firstly recorded from China based on the examination of the type specimens in the Muséum National d'Histoire Naturelle, Paris and other materials. Here *S. rufipenne* is redescribed, habitat and diurnal habit are observed and distribution map of this species is also provided.

MATERIALS AND METHODS

The material examined is preserved in the following collections: **CJQC** – Collection of Jianyue Qiu, Chongqing, China; **CSBC** – Collection of Stanislav Bečvář, Budějovice, Czech Republic; **HBUM** – Hebei University Museum, Baoding, China; **HNHM** – Hungarian Natural History Museum, Budapest, Hungary; **IZAS** – Chinese Academy of Sciences, Institute of Zoology, Beijing, China; **MNHN** – Muséum National d'Histoire Naturelle, Paris, France; **NSMT** – National Science Museum (Natural History), Tokyo, Japan; **SMNS** – Staatliches Museum für Naturkunde, Stuttgart, Germany; **YUIC** – Yan'an University, insect Collection, Yan'an, China. Abbreviation used in paper: h. – handwriting.

Specimens were examined under a Nikon (SMZ800) dissecting microscope. Measurements were taken and photographs captured using a Leica (M205 A) dissecting microscope. The habitat photos were taken with a Canon G15 camera.

NEW RECORD

Strongylium rufipenne L. Redtenbacher, 1844

Figs 1–4

Strongylium rufipenne L. Redtenbacher, 1844: 533.

Strongyliastrum braetii Fairmaire, 1894: 40. Synonymized by Gebien, 1944: 524.

Strongylium semirufum Pic, 1917: 15. Synonymized by Gebien, 1944: 524.

TYPE MATERIAL. *Strongylium semirufum*: TYPE – 1 unsexed, Tonkin, Chapa, correct locality unknown, 1916, R. Vitalis de Salvaza / Type / *Strongylium semirufum* Pic [h.] / Muséum Paris Coll. M. Pic / *Strongylium semirufum* Pic (MNHN); *Strongyliastrum braetii*: TYPE – 1 unsexed, Pedong, A. Desgodins / *Strongyliastrum braetii* Fairm. [h.] / Muséum Paris Coll. L. Fairmaire / *Strongylium braetii* Fairmaire (MNHN).

OTHER MATERIAL EXAMINED. **China**: E-Tibet, N of Brahamaputra great bend, 2050–2400 m, 30°00'–07'N, 94°52'–95°09'E, 16–20.VII 1992, 1 unsexed, L. & R. Businsky leg./ Jaroslav Turna coll. 1993 (CSBC); Tibet, Nielamu, Zhangmu, 2400–3000 m, 11.V 1966, 2 unsexed, Shuyong Wang leg. (IZAS); Chongqin, Jiangjin city, Simianshan, 10.VII 2010, 1 unsexed, Jianyue Qiu leg. (CJQC); Guangxi, Tianlin, Guangdongping, 1200–1300 m, 27.V 2002, 1♂, Xiujuan Yang leg.; Guangxi, Tianlin, Chengwanglaoshan, 1200–1300 m, 28.V 2002, 1♀, Xiujuan Yang leg.; Guangxi, Napo, Fude, 1350 m, 19.V 2000, 1♀, Chaodong Zhu leg.; Sichuan, Tianquan county, Labahe, 28.VII 2004, 1♀, Xiujuan Yang & Huiran Hua leg.; Sichuan, Tianquan contry, Labahe, 29.VII 2004, 1♀, Lei Liu leg.; Sichuan, 1120 m, 12.VII 2012, 2♀, Yimin Yang & Gang Tan leg.; Sichuan, Hongya county, Wawushan, Leiping, 1130 m, 14.VII 2012, 1♂, Yiming Yang & Yunzhen Li leg.; Yunnan, Lushui county, Pianma town, 11.V 2002, 1♂, Xiujuan Yang & Yushuang Liu leg.; Yunnan, Malipo, 30.V 2007, 1♂, collector unknown; Yunnan, Yangbi county, Shunbi, 21.V 2004, 1♀, Xiujuan Yang & Yushuang Liu leg.; Yunnan, Yingjiang, Xima, 16.V 2013, 1♂, Changqing Chen leg.; Yunnan, Shuifu county, Taiping, 700 m, 23.VII 2010, 1♂, Jishan Xu leg.; Yunnan, Gaoligong Mt., 23–27.VII 2012, 1♀; Yunnan, Dali, Cangshan, 1400–3000 m, 10–20.V 1998, 2♀, Benyong Mao leg.; Yunnan, Weixin, Daxueshan, 19. VIII 2013, 1♂, Xun Bian & Guanglin Xie leg.; Hubei, Shennongjia, Yangri, 400 m, 27.VI 1984, 1♀, Xiaoyuan Mao leg.; Hubei, Shennongjia, Songbai Town, 900–1300 m, 18–VII 2003, 1♀, Desheng Liu leg.; Hubei, Wufeng, Houhe, 16.VII 2002, 1♂, Jun Guo leg.; Hubei, Wufeng, Houhe, 18.VII 2002, 1♀, Huixing Zhou leg. (HBUM); China: «*Strongylium braetii* Fairm., g??». Chine / Muséum Paris Coll. L. Fairmaire», 1 unsexed (MNHN); Sichuan, Baoxing, Fengtongzhai, Dashuigou, 30.54°N, 102.91°E, 1500 m, 31.VII 2016, 1♀, Caixia Yuan leg.; Sichuan, Baoxing, Fengtongzhai, Dengchigou, 30.54°N, 102.94°E, 1700–2000 m, 1.VIII 2016, 2♂, 1♀, Caixia Yuan leg.; Sichuan, Baoxing, Fengtongzhai, Dachigou, 30.4°N, 102.8°E, 1200–1300 m, 2.VIII 2016, 1♂, 1♀, Caixia Yuan leg. (YUIC). **India**: India orient, 1 unsexed (HNHM); Indian Uttar Prad, Nainital zoom, 24.VI 1983, 1♂, det. Masumoto, 1997 (HNHM); **Nepal**: Himalaya, Mt. Everest, 1♀, Dr. Kaszab det. (HNHM); nr. Katmandu, VI 1987, 2♂, 3♀, 2 unsexed, K. Akiyama leg., O. Merkl det. (HNHM); Dhankuta Distr., Arun Valley, Hille to Shidua, Bhedetar, 2000–2700 m, 24–28.V 1996, 1 unsexed, P. Čechovský leg. (SMNS); Dolakha Distr. Sutidhoban, 1050 m, 27–28.V 2000, 1 unsexed, Schawaller leg. (SMNS); **Vietnam**: N. Vietnam, Cao Bang, 26–28.V 1995, 1 unsexed, Coll. Masumoto (NSMT).

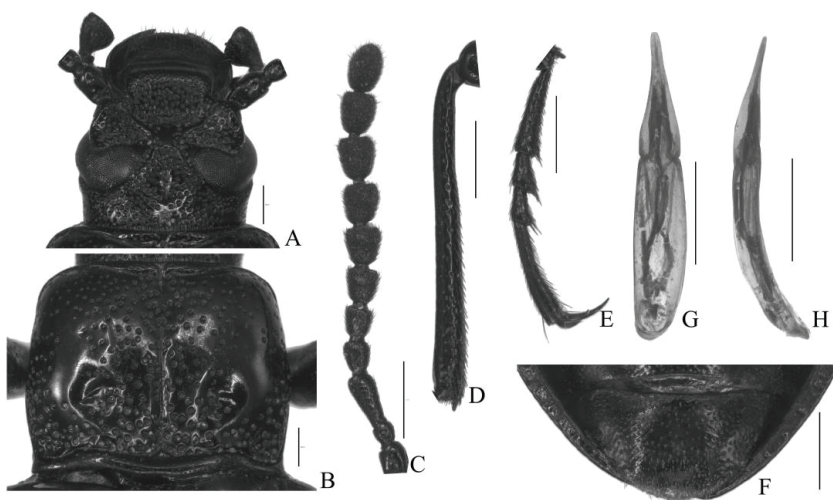


Fig. 1. *Strongylium rufipenne*, male. A – head; B – pronotum; C – antenna; D – hind tibia, lateral view; E – hind tarsi, lateral view; F – abdominal ventrite V; G – aedeagus, dorsal view; H – the same, lateral view. Scale bar 1 mm.

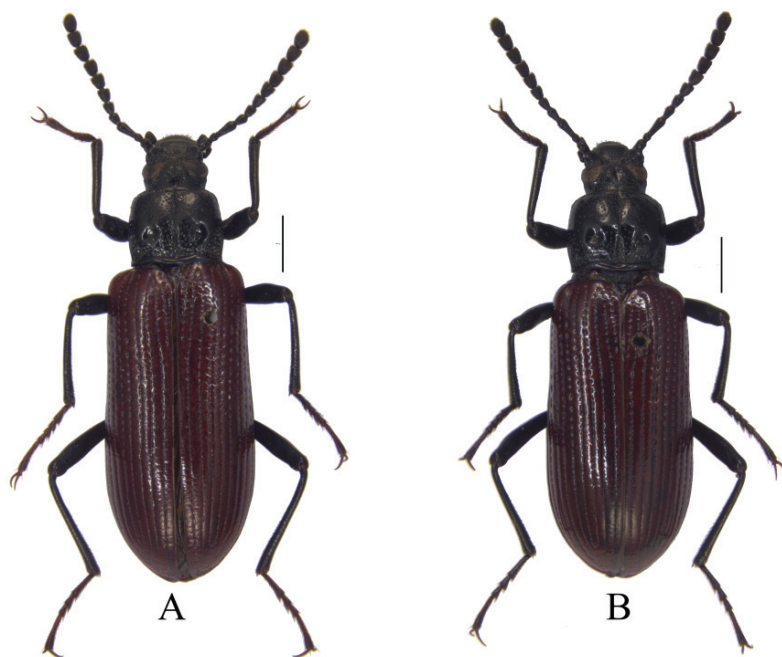


Fig. 2. Habitus of *Strongylium rufipenne*. A – male; B – female. Scale bar 1 mm.

DESCRIPTION. MALE. Body elongate, slightly convex longitudinally, basal 2/5 of elytra subparallel. Piceous, elytra and abdomen brownish red to dark red, mouthparts, tarsi brownish black, antennae brownish black; dorsal and ventral surface strongly vitreously shining, especially on pronotum. Clypeus weakly sparsely punctate, frontoclypeal suture straight in median part, extending out margins; genae strongly raised with rounded margins; frons steeply inclined anteriorly, with an interrupted impression in middle, elevated after frontoclypeal suture and between eyes, unevenly punctate, distance between eyes 1.27 times as wide as the transverse diameter of an eye in dorsal view; eyes medium-sized, weakly protruding, each side with gouge along the interior sides of posterior margins. Antennae subclaviform, sparsely haired, reaching the basal 2/9 of elytra, ratio of the length of antennomeres II–XI as 0.32, 0.72, 0.43, 0.43, 0.49, 0.56, 0.58, 0.61, 0.59, 0.66.



Fig. 3. Habitat and habitus of *Strongylium rufipenne*. A, B – habitat in Sichuan Province, Baoxing county, Muping town, Dachigou; C – habitus.

Pronotum subquadrate, 1.1 times as wide as long, widest at middle; anterior margin almost straight, finely bordered; posterior margin bisinuate, thickly rimmed; lateral margins arcuated, bordered along entire length, produced in middle; dorsal surface convex anteriorly, with a median-groove, both sides roundly foveate at basal 1/3, impressed near posterior angles, disc unevenly punctate; anterior angles rounded, posterior angles weakly acute. Scutellum subtriangular with arcuate sides, slightly impressed in median.

Elytra about 2.21 times as long as wide, 4.03 times the length and 1.52 times the width of pronotum, widest at apical 1/3; dorsum flattened, striae punctures elliptical, finely and closely set, becoming larger and sparser laterally, finely grooved apically; intervals weakly convex; apices rounded. Abdominal ventrites sparsely punctate and with short hairs, which longer on anal sternite, and punctures becoming closer, weakly impressed apically. Legs medium-sized, protibiae gently bent anteriorly, meso-, metatibiae almost straight, length ratio of metatarsomeres I–IV as: 1.19, 0.45: 0.47: 1.35. Aedeagus elongated fusiform, 3.01 mm long, 0.51 mm wide, apical 1.21 mm, gently curved basally in dorsal view.

FEMALE. Distance between eyes 1.27 times as wide as the transverse diameter of an eye in dorsal view; antennae stouter, ratio of the length of antennomeres II–XI as 0.33, 0.75, 0.53, 0.48, 0.47, 0.52, 0.53, 0.57, 0.54, 0.69; anal sternite without impression; protibiae straight.

MEASUREMENTS. Body length: 11.5–15.2 mm.

DISTRIBUTION. China (Hubei, Guangxi, Chongqing, Sichuan, Yunnan, Xizang), Vietnam, India, Nepal, Bangladesh (Fig. 4).

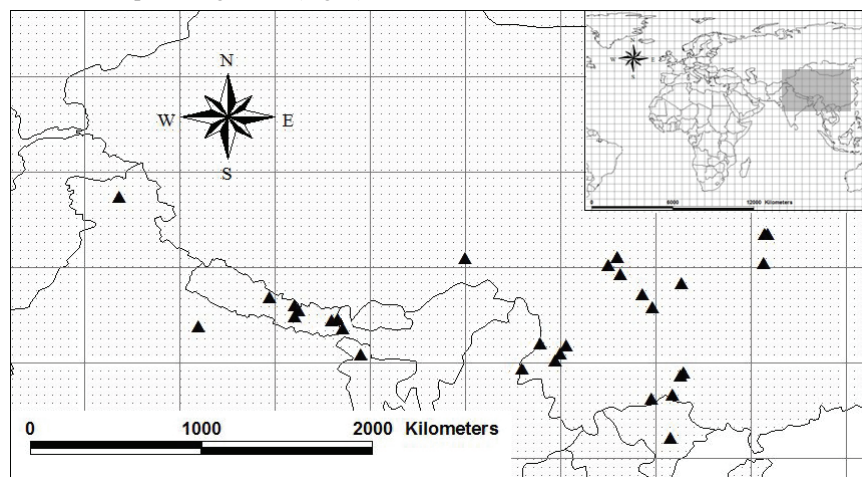


Fig. 4. Distribution of *Strongylium rufipenne*.

NOTES. This species is similar to *Strongylium masumotoi* Yuan et Ren, 2006 from China (Sichuan), but distinguishable by body piceous, elytra and abdomen dark red, elytra without patches, and pronotum very sparsely punctate. Two species, *S. rufipenne* and *S. masumotoi*, compose a species group of Chinese *Strongylium*. This species group is characterized by body weakly fusiform, base of elytra subparallel; eyes smaller, distance between eyes more than 0.7 times as wide as transverse diameter of an eye in dorsal view; antennae stout, subclavate.

The stenochid beetles often have a narrow distribution, but *S. rufipenne* have wide distribution in the Oriental Region, we found that it is diurnal during collection in Sichuan Province, and can be flying over short distances in the habitat (Fig. 3 A, B), so we thought these maybe the reason of its wide distribution.

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